

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P840247

Luminaire Tested: **LD4C70D010 EU4709050 4LBCSSQMW**

Issue Date: 5/25/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P840247
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209253)
Test Lab: INNOVATION CENTER
Issue Date: 5/25/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C70D010 EU4709050 4LBCSSQMW
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

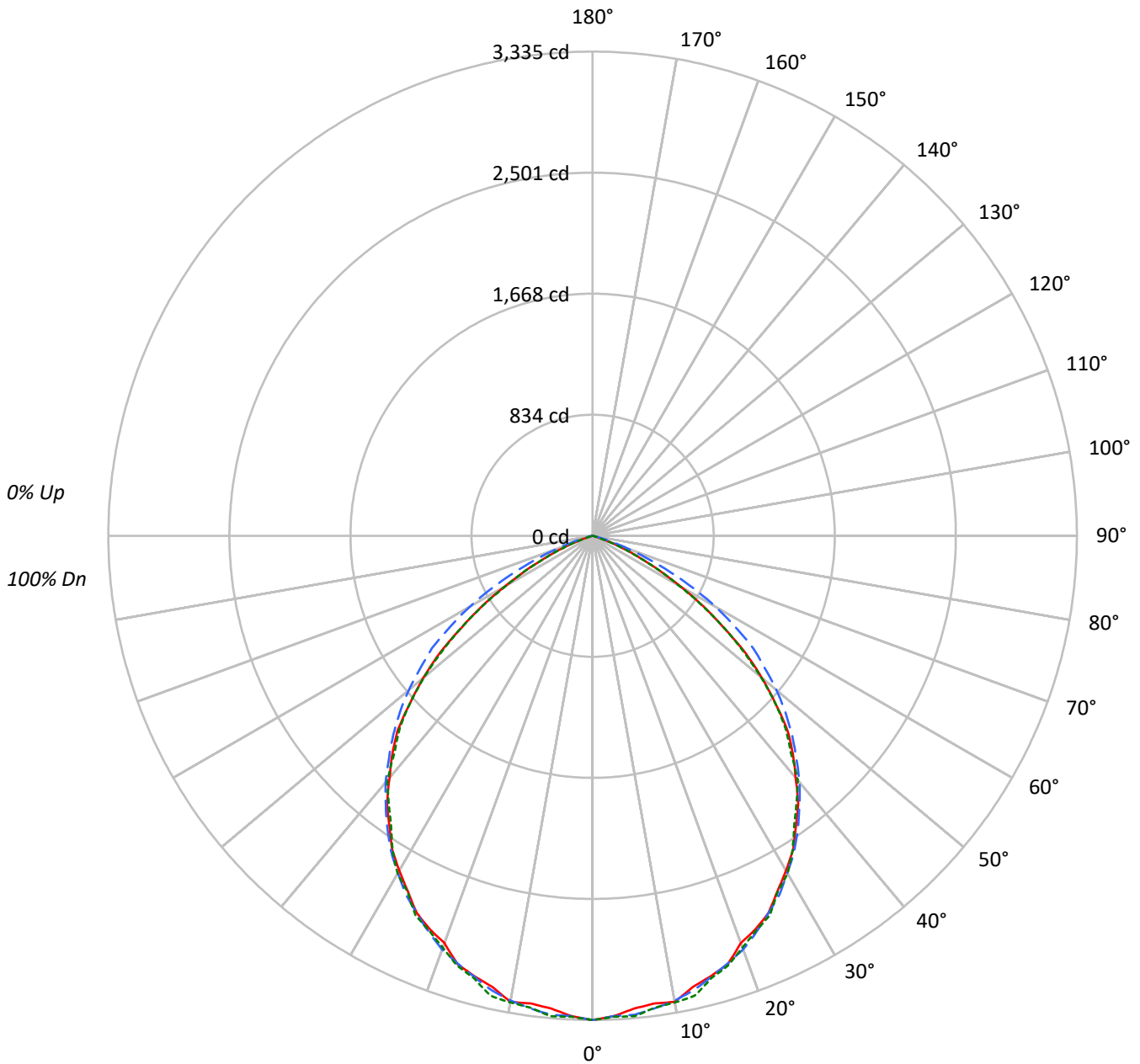
Lumens per Lamp: N/A
Luminaire Lumens: 7125.0 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 78
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89	89	89	89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77	77	77	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67	67	67	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59	59	59	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46	46	46	46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41	41	41	41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37	37	37	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33	33	33	33
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31	31	31	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	321829	321829	321829
5°	316637	320763	321673
10°	319377	318446	319828
15°	313783	314242	315191
20°	306483	311340	309892
25°	305157	305157	307169
30°	296656	298761	299296
35°	287399	290190	285161
40°	273919	279273	276879
45°	259239	265066	256646
50°	228302	248207	226876
55°	184894	227135	185702
60°	135297	188346	132576
65°	82215	134111	80046
70°	32076	72193	30750
75°	3542	19460	3542
80°	2667	2667	2667
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	314.8	4.4
10°-20°	890.9	12.5
20°-30°	1321.9	18.6
30°-40°	1531.7	21.5
40°-50°	1468.6	20.6
50°-60°	1079.8	15.2
60°-70°	466.4	6.5
70°-80°	50.3	0.7
80°-90°	0.7	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2527.6	35.5
0°-40°	4059.3	57.0
0°-60°	6607.6	92.7
0°-90°	7125.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7125.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3335	3335	3335	3335	3335	
5°	3269	3302	3312	3316	3321	312
15°	3141	3160	3146	3151	3155	885
25°	2866	2862	2866	2871	2885	1312
35°	2440	2454	2464	2459	2421	1526
45°	1900	1905	1942	1914	1881	1444
55°	1099	1213	1350	1208	1104	989
65°	360	450	587	445	351	370
75°	10	14	52	10	10	29
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4
2.5°	3311.7	3349.5	3354.4	3330.6	3321.1	3307.0	3340.1	3316.5	3326.0	3316.5	3311.7
5°	3269.1	3311.7	3316.5	3316.5	3307.0	3302.2	3316.5	3311.7	3307.0	3297.5	3311.7
7.5°	3250.2	3273.8	3297.5	3269.1	3283.2	3278.6	3311.7	3297.5	3292.7	3292.7	3283.2
10°	3259.7	3254.8	3273.8	3245.4	3254.8	3245.4	3273.8	3273.8	3264.3	3254.8	3250.2
12.5°	3183.7	3221.6	3221.6	3216.9	3207.5	3193.2	3221.6	3240.7	3212.1	3212.1	3207.5
15°	3141.2	3150.6	3155.3	3155.3	3150.6	3160.1	3174.2	3155.3	3160.1	3136.3	3145.8
17.5°	3093.8	3074.9	3089.0	3079.5	3084.3	3093.8	3112.7	3112.7	3084.3	3079.5	3089.0
20°	2984.8	3041.6	3046.4	3018.0	3022.7	3022.7	3055.9	3027.5	3046.4	3022.7	3032.1
22.5°	2932.6	2970.5	2975.3	2937.4	2961.0	2932.6	2965.8	2923.1	2970.5	2937.4	2951.5
25°	2866.3	2861.6	2875.8	2856.8	2861.6	2861.6	2885.2	2866.3	2880.6	2861.6	2866.3
27.5°	2757.5	2795.3	2790.5	2771.6	2781.0	2776.4	2823.8	2771.6	2800.0	2776.4	2785.9
30°	2662.6	2695.8	2686.3	2667.4	2667.4	2653.1	2705.3	2691.0	2686.3	2686.3	2681.5
32.5°	2567.8	2572.7	2563.2	2567.8	2572.7	2553.7	2596.2	2577.3	2572.7	2577.3	2582.1
35°	2439.9	2439.9	2449.3	2435.2	2454.2	2454.2	2492.1	2468.3	2463.6	2449.3	2463.6
37.5°	2326.2	2312.1	2316.7	2316.7	2326.2	2335.7	2354.6	2345.1	2345.1	2331.0	2340.5
40°	2174.7	2165.2	2179.3	2179.3	2193.6	2193.6	2212.5	2203.1	2217.2	2217.2	2217.2
42.5°	2042.0	2042.0	2032.6	2046.7	2051.5	2046.7	2079.9	2075.1	2079.9	2070.5	2075.1
45°	1899.8	1899.8	1890.3	1885.7	1909.3	1904.6	1942.5	1928.2	1947.1	1937.7	1942.5
47.5°	1705.5	1729.3	1715.0	1729.3	1757.7	1762.5	1786.1	1776.6	1795.6	1781.5	1800.4
50°	1520.9	1520.9	1535.0	1554.0	1582.4	1587.2	1615.6	1634.6	1644.0	1648.7	1653.5
52.5°	1326.6	1321.8	1336.1	1359.7	1383.5	1402.4	1430.8	1459.2	1478.2	1506.6	1492.3
55°	1099.1	1108.6	1122.9	1151.3	1189.2	1212.8	1236.6	1274.4	1307.7	1321.8	1350.2
57.5°	904.9	895.4	904.9	942.7	985.5	1004.4	1037.6	1075.5	1122.9	1151.3	1160.8
60°	701.1	705.9	715.4	748.7	781.7	810.1	824.4	885.9	928.6	957.0	976.0
62.5°	516.5	526.0	535.4	563.9	596.9	620.7	644.3	696.5	734.4	762.8	781.7
65°	360.1	364.8	379.1	393.2	426.4	450.0	469.0	511.7	549.6	573.3	587.4
67.5°	222.7	227.3	236.8	255.9	279.5	298.5	317.4	345.8	379.1	402.7	407.5
70°	113.7	118.5	123.1	137.4	156.4	165.9	180.0	203.7	227.3	246.3	255.9
72.5°	37.9	37.9	42.7	52.2	61.7	71.1	75.8	99.5	118.5	128.0	132.6
75°	9.5	9.5	9.5	9.5	9.5	14.3	14.3	28.4	37.9	47.4	52.2
77.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	9.5	9.5
80°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4	3335.4
2.5°	3335.4	3326.0	3321.1	3326.0	3326.0	3321.1	3335.4	3354.4	3378.0	3316.5
5°	3330.6	3321.1	3330.6	3302.2	3316.5	3307.0	3326.0	3321.1	3340.1	3321.1
7.5°	3316.5	3297.5	3302.2	3288.1	3307.0	3283.2	3297.5	3326.0	3307.0	3278.6
10°	3269.1	3259.7	3292.7	3245.4	3235.9	3254.8	3292.7	3264.3	3254.8	3264.3
12.5°	3221.6	3221.6	3235.9	3198.0	3202.6	3212.1	3231.1	3212.1	3221.6	3245.4
15°	3169.6	3160.1	3183.7	3155.3	3150.6	3141.2	3160.1	3160.1	3169.6	3155.3
17.5°	3107.9	3093.8	3093.8	3084.3	3079.5	3103.3	3112.7	3117.4	3122.2	3103.3
20°	3032.1	3027.5	3041.6	3027.5	3032.1	3037.0	3037.0	3027.5	3070.0	3018.0
22.5°	2951.5	2965.8	2946.9	2937.4	2946.9	2956.4	2956.4	2961.0	2951.5	2942.1
25°	2871.1	2880.6	2885.2	2856.8	2871.1	2856.8	2890.1	2894.7	2875.8	2885.2
27.5°	2800.0	2785.9	2781.0	2762.1	2771.6	2766.9	2771.6	2771.6	2800.0	2762.1
30°	2691.0	2676.9	2681.5	2667.4	2672.0	2667.4	2672.0	2672.0	2691.0	2686.3
32.5°	2586.8	2572.7	2577.3	2563.2	2563.2	2567.8	2558.4	2558.4	2572.7	2563.2
35°	2487.2	2454.2	2458.8	2454.2	2458.8	2439.9	2439.9	2435.2	2444.7	2420.9
37.5°	2345.1	2331.0	2326.2	2321.6	2326.2	2316.7	2326.2	2312.1	2326.2	2307.3
40°	2217.2	2207.7	2212.5	2184.1	2184.1	2188.8	2179.3	2174.7	2179.3	2198.2
42.5°	2089.4	2070.5	2061.0	2051.5	2056.2	2042.0	2037.2	2027.7	2037.2	2018.3
45°	1937.7	1937.7	1933.0	1909.3	1914.1	1914.1	1895.1	1876.2	1880.8	1880.8
47.5°	1800.4	1790.9	1786.1	1762.5	1757.7	1753.1	1733.9	1719.8	1719.8	1705.5
50°	1648.7	1639.2	1625.1	1601.3	1591.8	1563.4	1549.3	1530.4	1511.4	1511.4
52.5°	1506.6	1473.4	1454.4	1416.5	1402.4	1388.1	1350.2	1336.1	1321.8	1307.7
55°	1336.1	1307.7	1269.8	1227.1	1208.1	1184.4	1146.5	1118.1	1099.1	1103.9
57.5°	1170.3	1122.9	1085.0	1028.2	1004.4	990.1	952.2	914.3	895.4	895.4
60°	966.5	928.6	881.3	829.1	810.1	786.5	739.0	715.4	701.1	687.0
62.5°	772.2	743.8	701.1	634.8	620.7	596.9	563.9	535.4	521.1	521.1
65°	578.0	549.6	511.7	464.3	445.4	426.4	398.0	369.6	355.3	350.6
67.5°	407.5	374.2	341.2	303.3	289.0	279.5	251.1	232.2	222.7	217.9
70°	246.3	227.3	203.7	175.3	161.0	151.6	132.6	118.5	113.7	109.0
72.5°	128.0	113.7	94.7	75.8	66.3	56.8	47.4	37.9	33.2	33.2
75°	47.4	37.9	23.8	14.3	9.5	9.5	9.5	9.5	9.5	9.5
77.5°	9.5	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
80°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°









(END OF REPORT)